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10/008,748	12/06/2001	Craig A. Paulsen	406590	6019

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08/18/2003

EXAMINER

ENATSKY, AARON L

ART UNIT	PAPER NUMBER
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3713

DATE MAILED: 08/18/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

10/008,748

Applicant(s)

PAULSEN ET AL.

Examiner

Aaron L Enatsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 13
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Response to Amendment*

Examiner acknowledges receipt of amendment and rule 132 declaration on 7/16/03. The arguments set forth in the response are addressed herein below. Rejections based upon this prior art are contained herein below.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, *if* the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,605,506 to Hoorn et al. (Hoorn) and further in view of US Patent No. 6,265,984 to Molinaroli (Mol). Hoorn teaches a gaming machine (4:48-49), a user input mechanism (4:49-50), an external visual indicator providing illumination in multiple colors (5:1-13), the colors are illuminated in a controlled fashion as a result of different events (5:1-13) such as jack-pots (Abstract) and requirements for service (5:8-12), the external visual indicator is a cylindrically shaped electronic candle (Fig. 3), the customized illumination pattern is a two-stage candle with different light sources (5:41-43). A processor controlling game input and illumination output is inherent with gaming machines and is supported through the disclosure of the gaming machine maybe any variety of computer (3:60-63). Hoorn does not teach using LEDs or illumination patterns using the LEDs. Mol teaches the limitations of cylindrical display (3:1-3, Fig. 19)

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containing a plurality of light emitting diodes to create recognizable text and images to be viewable by an individual (15:35-16:67), using multiple multicolor LEDs in the light display to provide a more colorful display (4:14-15), the multicolor LEDs can be used to produce many different colors (7:46-50), cycling the lights in a controlled manner to produce graphics or messages (1:67-2:4), using a processor for controlling the LED display to provide the ability to pulse the LEDs (4:38-39), an I/O interface is connected to the processor (4:38-39), and a storage system connected to the processor for storing user programmable patterns (4:60-61). Mol does not teach the LED display mounted to a gaming machine, but as readily apparent from the design that the LED display could be mounted or placed on any surface. Additionally, the LED display is versatile for producing images and adapted for a large variety of embodiments (Figs. 1-27). One would be motivated to modify Hoorn to include the LED display device taught by Mol as Hoorn includes a similar feature using a mounted illumination display on a game machine to provide alerts and game events. Substituting the incandescent lights taught by Hoorn's current display would add a versatile, inexpensive light display for producing illumination effects (Mol 1:47-50) reducing overall costs by eliminating the current expensive incandescent light source and replacing it with power saving LEDs. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hoorn to replace the current illumination display for an inexpensive LED light display. Further device interoperability and user control is supported through the communication interfaces provided by Hoorn and Mol. Hoorn teaches that a communication link and interface is already present to connect to the current console from the gaming machine (Hoorn, Fig. 2) and the above discussed existing user input panel. Mol provides for any type of well-known computer interfaces (7:65-8:6) to connect

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to a stand-alone processor/board configuration so that a user can program new LED illumination combinations. This the combination of Hoorn in view of Mol provides for a main processor in the gaming machine, which would communicate with a secondary processor located in a remote board. One would be further motivated to add the user programmable display features taught by Mol so that they can customize a display message using the existing user input panel, alerting other game participants of different favorable game events rather than the standard illumination feature. Mol provides similar motivation through the disclosure of providing messages of interest/amusement to passers by (9:44-45). Thus, the customization would add greater user satisfaction through increased user game interaction.

As Hoorn in view of Mol uses LED for illumination, it would be obvious to one of ordinary skill to include a DC power supply as LED need to powered by DC power.

In regard to pulse width modulators and board configurations, Hoorn in view of Mol teaches the claimed limitations as disclosed above, but does not specifically teach a pulse width modulator (PWM) to control LED illumination. However, Mol teaches a preferred embodiment using a microprocessor to control the LED illumination as discussed earlier (4:19-20) that has a built in oscillator (4:21-22) that drives the LED bursts. One would be motivated to use a PWM as it is notoriously well known in the art to use a PWM as an oscillator to regulate a controlled, consistent output signal, as required of an oscillator. In regard to processor and board configurations, the specific design choice of two separate processor on two separate boards or a feature combination of both processors in a single processor is considered well with the capability of one of ordinary skill in the art.

In regard to the ability to produce various colors, Hoorn in view of Mol disclose the

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ability to produce various different colors, but lacks specific teachings of the exact colors.

However, the ability to produce various different colors would encompass Applicant's required colors.

In regard to the candles with multiple different stages of LEDs, Hoorn provides a candle with two stages, with each illumination stage providing a different meaning for different events (5:40-6:24). Hoorn does not teach additional combinations of a third and fourth stage, but it is considered well within the capabilities of one of ordinary skill to duplication elements and their existing functions, thus obvious to add additional stages if more visual events alerts are needed, or to further provide greater combination of player definable illumination.

In regard to the various embodiments for displaying the illumination, Mol teaches an embodiment using a light reflector to focus the LED display (20:4-5). While Hoorn in view of Mol does not teach the specific embodiments of a conical parabolic reflector, translucent rods, and translucent discs for distributing the illumination, but lacking criticality the illumination displays can be formed in a variety of displays as can be seen from Mol (Fig. 1-27). The different embodiments are commensurate with providing different levels of light diffusion for different situations. The various embodiments are considered well within the capabilities of one of ordinary skill to produce depending on the level of luminance needed.

### ***Response to Arguments***

Applicant's arguments and declaration filed 07/16/03 have been fully considered but they are not persuasive.

Applicant's Rule 132 Declaration has been given proper consideration, but not

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considered persuasive. Examiner has considered the declaration a collection of allegations and opinions, lacking any factual evidence, such as experimental evidence, uninterested 3<sup>rd</sup> party testimony of an expert in the art. Furthermore, prior art of record and new citations of prior art teach, stationary LED display devices, LED ease of replacement, reasons for using LED in place of incandescent bulbs, and programmable control over LED displays.

For consideration against the rejection of claim 1 as obvious over Hoorn in view of Mol, applicant submits that prior art does not teach each and every feature claimed. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In regard to claims 1, 18, and 40, Applicant argues that there is no suggestion to combine the teaching of Mol with Hoorn, or vice versa. Examiner believes clear motivation was provided in the above rejection in relation to illumination displays and common engineering design considerations. As Applicant questioned the validity of these motivations in an interview 8/11/2003, Examiner has additionally provided a plethora of prior art references in the Citation of Pertinent Prior Art that show common engineering design considerations in the sign arts, which are directly related to Applicant's instant invention. This also shows that Examiner's reasons to combine were not hindsight reconstruction of the prior art.

#### ***Citation of Pertinent Prior Art***

US 5,936,599 to Reymond teaches replacing incandescent bulbs with LEDs. Reymond also

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provides support for common and valid engineering reasons for replacing incandescent bulbs in the signage art.

US 4,211,955 to Ray teaches a replacement LED lamp for conventional incandescent bulbs. The design allows for easy and simple replacement, well known in the art.

US 4,682,147 to Bowman teaches replacing a standard bulb with a LED lamp for a sign.

US 5,257,020 to Morse teaches a user programmable LED array for producing any type of message.

US 6,239,716 to Pross et al. teaches a display comprising a set of LEDs that can be applied to a plurality of communication and sign arts.

US 5,575,459 to Anderson teaches an arrangement of LEDs that will allow for retrofitting into a standard lamp base.

US 5,561,346 to Byrne teaches a LED array using convex and concave surfaces to project/reflect light.

US 5,850,126 to Kanbar teaches a screw in LED lamp.

US 6,305,821 to Hsieh et al. teaches a LED lamp with a spherical diffusing modifier.

US 6,371,636 to Wesson teaches LED light modules for signaling and lighting applications

US 5,521,587 to Sawabe et al. teaches retro fitting LEDs in traditional incandescent applications.

US 5,187,377 to Katoh teaches a LED lamp producing multiple colors.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron L Enatsky whose telephone number is 703-305-3525. The examiner can normally be reached on 8-6 M-Th.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg can be reached on 703-308-1327. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Aaron Enatsky  
August 12, 2003

  
Teresa Walberg  
Supervisory Patent Examiner  
Group 3700